

**PATENT APPLICATION**

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of

Isao OTA, Kenji TANIMOTO, Tohru NISHIMURA

Application No.: New US Patent Application

Filed: December 17, 2001

Docket No.: 111483

For: CERIUM OXIDE SOL AND ABRASIVE

**PRELIMINARY AMENDMENT**

Director of the U.S. Patent and Trademark Office  
Washington, D. C. 20231

Sir:

Prior to initial examination, please amend the above-identified application as follows:

**IN THE CLAIMS:**

Please replace claims 12-18 as follows:

12. (Amended) An abrasive according to claim 10, wherein the additional component is a lanthanum compound.
13. (Amended) An abrasive according to claim 10, wherein the additional component is a neodymium compound.
14. (Amended) An abrasive according to claim 10, which is adjusted with an acidic substance to a pH of 1 to 6.
15. (Amended) An abrasive according to claim 10, which is adjusted with a basic substance to a pH of 8 to 13.
16. (Amended) An abrasive according to claim 10, which is used for polishing a substrate which comprises silica as a main component.

17. (Amended) An abrasive according to claim 10, which is used for polishing a rock crystal, a quartz glass for photomask, a semiconductor device or a hard disk made of glass.

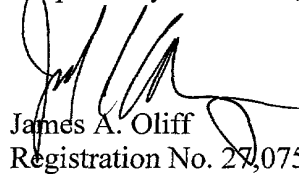
18. (Amended) An abrasive according to claim 10, which is used in a step of polishing an organic film, a step of polishing Inter Layer Dielectric (ILD) or a step of shallow trench isolation, for polishing a semiconductor device.

REMARKS

Claims 1-18 are pending. By this Preliminary Amendment, claims 12-18 are amended to eliminate multiple dependencies. Prompt and favorable consideration on the merits is respectfully requested.

The attached Appendix includes marked-up copies of each rewritten claim (37 C.F.R. §1.121(c)(1)(ii)).

Respectfully submitted,



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Attached: APPENDIX

Date: December 17, 2001

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## APPENDIX

## Changes to Claims:

The following are marked-up versions of the amended claims:

12. (Amended) An abrasive according to claim 10-~~or 11~~, wherein the additional component is a lanthanum compound.
13. (Amended) An abrasive according to claim 10-~~or 11~~, wherein the additional component is a neodymium compound.
14. (Amended) An abrasive according to claim 10-~~or 11~~, which is adjusted with an acidic substance to a pH of 1 to 6.
15. (Amended) An abrasive according to claim 10-~~or 11~~, which is adjusted with a basic substance to a pH of 8 to 13.
16. (Amended) An abrasive according to claim 10-~~or 11~~, which is used for polishing a substrate which comprises silica as a main component.
17. (Amended) An abrasive according to claim 10-~~or 11~~, which is used for polishing a rock crystal, a quartz glass for photomask, a semiconductor device or a hard disk made of glass.
18. (Amended) An abrasive according to claim 10-~~or 11~~, which is used in a step of polishing an organic film, a step of polishing Inter Layer Dielectric (ILD) or a step of shallow trench isolation, for polishing a semiconductor device.